REMARKS/ARGUMENTS

Claims 1-20 are pending in this application.

Claims 1, 3, 5, 7-13 and 16-20 were rejected under 35 U.S.C. § 102(b) as being anticipated by Tam (U.S. 5,006,821). In addition, claims 2, 6, 14 and 15 were rejected under 35 USC § 103(a) as being unpatentable over Tam in view of Caragliano et al. (U.S. 3,999,150). And finally, claims 1-20 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Nagamori et al. (U.S. 6,483,398) in view of Caragliano et al. Applicants respectfully traverse these prior art rejections.

Claim 1 recites:

> "A directional coupler comprising:
> a main line through which a high-frequency signal is transmitted; and
> a subline provided on a common plane with said main line, the subline being electromagnetically coupled to said main line along a portion where said main line and said subline oppose each other, wherein **a self-inductance value of said main line is smaller than a self-inductance value of said subline**." (emphasis added)

Claim 11 recites features which are similar to the features recited in claim 1, including the emphasized features.

The Examiner alleged that Tam teaches all of the features recited in claims 1 and 11 of the present application, including a self-inductance value of a main line is smaller than the self-inductance value of a subline. Applicants respectfully disagree.

The Examiner alleged that since the main line 50 in Fig. 4 of Tam has a greater width than the sublines 54 and 55, the self-inductance value of the main line 50 would inherently be smaller than the self-inductance of the sublines 54 and 55. This is clearly incorrect. Self-inductance values depend on **both** the line width **and** the line length. As clearly seen in Fig. 4 of Tam, the main line 50 is **much longer** than either of the sublines 54 and 55. Since Tam fails to disclose or suggest anything at all about the self-inductance of the main line 50 or the sublines 54 and 55, and the self-inductances of the main line 50 and the sublines 54 and 55 cannot be determined merely from Fig. 4

of Tam, Applicants respectfully submit that Tam fails to teach or suggest each and every feature recited in claims 1 and 11 of the present application, including "a self-inductance value of said main line is smaller than a self-inductance value of said subline." The Examiner is reminded that a "claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference." Verdegaal Bros. v. Union Oil Co. of California, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987).

The Examiner also alleged that Nagamori et al. teaches all of the features recited in the present claimed invention, except for a main line and a subline which are disposed in a common plane. The Examiner further alleged that Caragliano et al. teaches a main line and a subline of a directional coupler which are disposed in a common plane. Thus, the Examiner concluded that it would have been obvious to use the teaching of Caragliano et al. in the coupler of Nagamori et al. Applicants respectfully disagree.

In order to establish a prima facie case of obviousness, the Patent Office must:

1. Set forth the differences in the claim over the applied references;
2. Set forth the proposed modification of the references which would be necessary to arrive at the claimed subject matter; and
3. Explain why the proposed modification would be obvious.

Graham v. John Deere Co., 383 U.S. 1, 148 USPQ 459 (1966).

To satisfy step 3, the Patent Office must identify where the prior art provides a motivation suggestion to make the modifications proposed in step 2. In re Jones, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). The Examiner failed to cite such a motivating suggestion in the prior art. In fact, the Examiner failed to even address the issue of motivation to combine the teaching of Caragliano et al. with Nagamori et al.

Furthermore, the mere fact that the prior art may be modified as suggested by the Examiner does not make the modification obvious unless the prior art suggests the desirability of the modification. In re Fritch, 922 F.2d 1260, 23 USPQ2d 1780 (Fed. Cir.

1992).

Applicants respectfully submit that the Examiner has clearly failed to establish a *prima facie* case of obviousness, since (1) the Examiner has failed to provide **any** motivation to combine the teachings of Caragliano et al. with Nagamori et al., and in fact, Caragliano et al. fails to provide any motivation at all to combine the teachings thereof with Nagamori et al.

Accordingly, Applicants respectfully submit that Tam, Nagamori et al. and Caragliano et al., applied alone or in combination, fail to teach or suggest the unique combination and arrangement of elements recited in claims 1 and 11 of the present application.

In view of the foregoing remarks, Applicants respectfully submit that claims 1 and 11 are allowable. Claims 2-10 and 12-20 depend upon claims 1 and 11, and are therefore allowable for at least the reasons that claims 1 and 11 are allowable.

In view of the foregoing amendments and remarks, Applicants respectfully submit that this application is in condition for allowance. Favorable consideration and prompt allowance are solicited.

To the extent necessary, Applicants petition the Commissioner for a Two-month extension of time, extending to September 23, 2003, the period for response to the Office Action dated April 23, 2003.

The Commissioner is authorized to charge any shortage in fees due in connection with the filing of this paper, including extension of time fees, to Deposit Account No. 50-1353.

Respectfully submitted,

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